

OCT 13 2006

Serial No. 10/806,318

Docket No. 1293.1278C4

**REMARKS**

In accordance with the foregoing, the specification has been amended to improve form. Claims 1-5, 7, 10-14, and 16-20 have been amended, and claims 6, 9 and 15 have been cancelled without prejudice or disclaimer. Claims 1-5, 7, 8, 10-14, and 16-20 are pending and under consideration. No new matter is presented in this Amendment.

**DOUBLE PATENTING**

On pages 2-3 of the Office Action, the Examiner provisionally rejects claims 1-20 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of copending U.S. Patent Application No. 10/806,107. Since U.S. Patent Application No. 10/806,107 has not yet been issued as patents, and since claims 1-5, 7, 8, 10-14, and 16-20 of the instant application have not yet been indicated as allowable, it is believed that any submission of a Terminal Disclaimer or arguments as to the non-obvious nature of the claims would be premature. MPEP 804(I)(B). As such, it is respectfully requested that the applicant be allowed to address any obviousness-type double patenting issues remaining once the rejection of the claims under 35 U.S.C. §§112, 102, and 103 are resolved and that the rejection be reconsidered in light of the claims presented above and now presented in U.S. Patent Application No. 10/806,107.

**REJECTIONS UNDER 35 U.S.C. §112:**

On pages 3-4 of the Office Action, the Examiner rejects claims 1-6 and 8-20 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The rejection is traversed and reconsideration is respectfully requested.

As a point of clarification, claims 6, 9 and 15 have been cancelled without prejudice or disclaimer. As such, it is respectfully submitted that the rejection of these claims is deemed moot.

While it is respectfully submitted that the claims as previously presented were compliant with 35 U.S.C. §112, second paragraph, claims 1, 5, 10, 14, 19 and 20 have been amended to replace the term "pulse" with "period" to be more consistent with the terminology used in the specification as noted by the Examiner on page 4. As such, it is respectfully requested that the Examiner reconsider and withdraw the rejection.

**Serial No. 10/806,318****Docket No. 1293.1278C4****REJECTIONS UNDER 35 U.S.C. §102:**

On pages 4-8 of the Office Action, the Examiner rejects claims 1-5, 7, 9, 11, 12 and 14 under 35 U.S.C. §102(e) in view of Dekker (U.S. Publication No. 2002/0003762). The rejection is respectfully traversed and reconsideration is respectfully requested.

As a point of clarification, claim 9 has been cancelled without prejudice or disclaimer. As such, it is respectfully submitted that the rejection is deemed moot.

By way of review, FIGs. 1A and 1B of Dekker show an erase pulse sequence 14 having a first erase pulse at a high level  $P_e$  and a last erase pulse at a bias level  $P_1$  or  $P_2$  according to the writing speed. The write pulse sequence 13 has pulse at a level  $P_w$ , and a bias pulse at a level (unlabeled) below the bias levels  $P_1$  or  $P_2$  of the erase pulse (Paragraphs 0028 through 0031; Figs. 1A through 2). While Dekker shows the first erase pulse at the high level  $P_e$ , Dekker does not suggest that a power level of the first erase is the bias levels  $P_1$  or  $P_2$ .

On page 5 of the Office Action, the Examiner asserts that the first pulse of the erase pulse sequence 14 is actually at a low level below  $P_e$  or  $P_1$ . However, it is respectfully submitted that the pulse referred to by the Examiner is the bias pulse of the write pulse sequence 13. This low bias pulse is below the level of the low power for the erase pulse sequence 14 (i.e., bias pulse  $P_1$  or  $P_2$ ), and is not suggested as being part of the erase pulse sequence 14. Thus, the pulse referred to by the Examiner does not correspond to the low power for the erase pulse sequence 14.

Additionally, while the Examiner asserts that the power level  $P_1$  corresponds to a high level of the erase pulse sequence 14 as compared to the bias level of the write pulse sequence 13, it is respectfully submitted that the power level  $P_1$  within the erase pulse sequence 14 is the low level as compared to the erase pulse  $P_e$ .

In contrast, claim 1 recites, among other features, that "a power level of the leading pulse of the second pulses is the low power level of the multi-pulse" and "a power level of a period between an end point of the second pulses and a start point of the first pulses is the high power level of the multi-pulse." As such, it is respectfully requested that the Examiner reconsider and withdraw the rejection in view of Dekker.

For at least similar reasons, it is respectfully submitted that Dekker does not disclose or suggest the invention as recited in claims 5 and 7.

Similarly, to the extent that the bias level of the write pulse sequence 13 extends between periods 11 and 12, it is respectfully submitted that the bias level of the write pulse

**Serial No. 10/806,318****Docket No. 1293.1278C4**

sequence 13 in Dekker does not disclose or suggest, among other features, that "the cooling pulse has a power below the low power level of the multi-pulse" as recited in claim 2.

Also, to the extent Dekker shows the erase pulse sequence 14 having a first erase pulse at a high level  $P_a$  and a last erase pulse at a bias level  $P_1$ , there is no suggestion that "a power of the leading pulse of the second pulses is equal to a power of a period between an end point of the second pulses and a start point of the first pulses" as recited in claim 10. As such, it is respectfully submitted that Dekker does not disclose or suggest the inventions as recited in claims 11 through 14, which depend from claim 10.

Claims 3 and 4 are deemed patentable due at least to their depending from claim 1.

On pages 8-9 of the Office Action, the Examiner rejects claim 19 under 35 U.S.C. §102(e) in view of Ichihara (U.S. Patent No. 6,396,792). The rejection is respectfully traversed and reconsideration is respectfully requested.

By way of review, Ichihara discloses a waveform of recording pulses having erasure steps  $P_{c1}$  and  $P_{c2}$  when an NRZI signal as shown in FIG. 1A is low. Ichihara also discloses recording pulses including recording steps  $P_{c1}$ ,  $P_a$  when the NRZI signal as shown in FIG. 1A is high. While not labeled in FIG. 1B or specifically discussed in the specification, a first one of the recording pulses has a level which is below the power level  $P_{c1}$  (and appears to be  $P_c$ ), and increases into a second pulse having a level of  $P_a$ . As such, the power level of the pulse between the recording and erase pattern is shown as less than the first pulse of the erase signal having the power level  $P_{c1}$  and is not shown as being the high power level  $P_{c1}$  used in the erase steps.

In contrast, claim 19 recites, among other features, that "a power level of the leading pulse of the second pulses is at the high power level of the multi-pulse and a power level of a period between an end point of the second pulses and a start point of the first pulses is at the high power level of the multi-pulse." As such, it is respectfully requested that the Examiner reconsider and withdraw the rejection in view of Ichihara.

On page 9 of the Office Action, the Examiner rejects claim 20 under 35 U.S.C. §102(e) in view of Ohno et al. (U.S. Patent No. 5,150,351). The rejection is respectfully traversed and reconsideration is respectfully requested.

By way of review, Ohno et al. suggests a pulse spacing period having narrow signals which alternate between a playback power level  $P_r$  and an erase power level  $P_b$  according to 1 and 0 states of a signal as shown in FIG. 4(a). (Col. 6, lines 4-51; Figs. 4A through 5(d)). Even

**Serial No. 10/806,318****Docket No. 1293.1278C4**

assuming *arguendo* the beginning pulse and ending pulses within the 0 state are at a Pr level when the signal of FIG. 4(a) increases from 0 to 1, the pulse increases from the Pr level while at 0 to a Pp level at 1. As such, the pulse relied on by the Examiner does not correspond to a pulse within the 1 state. There is further no suggestion that another power level exists between the 0 and 1 states of the signal in FIG. 4(a), or that the power level of such a pulse should be or is at the Pr level as opposed to the Pp level.

In contrast, claim 20 recites, among other features, that "a power level of the leading pulse is at the low power level of the multi-pulse and a power level of a period between an end point of the second pulses and a start point of the first pulses is at the low power level of the multi-pulse." As such, it is respectfully requested that the Examiner reconsider and withdraw the rejection in view of Ohno et al.

**REJECTIONS UNDER 35 U.S.C. §103:**

On page 10 of the Office Action, the Examiner rejects claim 8 under 35 U.S.C. §103(a) in view of Dekker and Clark et al. (U.S. Patent 5,802,031). The rejection is respectfully traversed and reconsideration is requested.

Even assuming *arguendo* that the Examiner's characterization of Clark et al. is correct, the Examiner does not rely upon Clark et al. as curing the above-noted deficiency of Dekker as applied to claim of claim 1, from which claim 8 depends. As such, it is respectfully submitted that the combination does not suggest the features of claim 8.

**CONCLUSION:**

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

**Serial No. 10/806,318**

**Docket No. 1293.1278C4**

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 503333.

Respectfully submitted,

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